Application No.: 10/707,820

Page 4

In the Claims:

Please cancel claims 4-7 without prejudice to or disclaimer of the subject matter therein. The Examiner treated independent claim 7 as beginning at line 4 of claim 6. Please add new claims 8-24. The following listing of claims will replace all prior versions, and listings, of claims in the application. Currently amended claims are shown with additions <u>underlined</u> and deletions in <u>strikethrough text</u>. No new matter is added by this amendment to the claims.

1. (Currently Amended) <u>An apparatus</u>, A system for simulating radio frequency identification systems comprising:

a database <u>configured to store a plurality of containing</u> radio frequency identification (<u>RFID</u>) system component specifications and other information useful for simulating such systems;

a user interface allowing for input and output; a radio wave propagation simulator; an external data network access means; and

a logical system simulator coupled to the database, the logical system simulator configured that uses input from the user interface, the database, the radio wave propagation simulator, and the external data network access means to determine configurations and components to simulate an electronic representation of an RFID system based on the plurality of RFID system component specifications to select at least two RFID system components including at least one of an RFID tag or an RFID interrogator components of radio frequency identification systems meeting requirements entered via the user interface and to add and remove records from the database.

2. (Current Amended) The apparatus of A system according to claim 1, wherein the database is configured to update an RFID system component specification from the plurality of RFID system component specifications in the database is updated based on the basis of information received acquired from a peer system other similar systems via an the external data network access means.

Application No.: 10/707,820

Page 5

3. (Currently Amended) The apparatus of A system according to claim 1, wherein the database is configured to update an RFID system component specification from the plurality of RFID system component specifications in the database is updated based on the basis of information received acquired from a deployed the radio frequency interrogator, the deployed radio frequency interrogator corresponding with the RFID interrogator.

4. - 7. (Canceled)

- 8. (New) The apparatus of claim 1, wherein the logical system simulator is configured to define a configuration for the at least two RFID system components based on the simulation.
- 9. (New) The apparatus of claim 1, further comprising a radio wave propagation simulator coupled to the logical system simulator, the logical system simulation configured to simulate the electronic representation based on a signal strength at a location within an architectural environment associated with the electronic representation of the RFID system, the radio wave propagation simulator configured to simulate the signal strength.
- 10. (New) The apparatus of claim 1, wherein the logical system simulation configured to simulate the electronic representation is based on a minimum read rate of an interrogator simulated as part of the electronic representation of the RFID system.
- 11. (New) The apparatus of claim 1, wherein the logical system simulation configured to simulate the electronic representation is based on at least one of a cost of a component within the electronic representation of the RFID system or a definition of an obstacle within the electronic representation of the RFID system.

Application No.: 10/707,820

Page 6

12. (New) A method, comprising:

selecting at a radio frequency identification (RFID) simulator a simulated RFID tag from a set of simulated RFID components based on a specification associated with the simulated RFID tag and a simulation of an electronic representation of an RFID system; and

modifying the specification associated with the simulated RFID tag based on a signal received at a physical interrogator from a physical RFID tag, the physical RFID tag being associated with the simulated RFID tag and being deployed in a physical RFID system associated with the electronic representation of the RFID system.

13. (New) The method of claim 12, wherein the RFID simulator is a first RFID simulator, the method further comprising:

sending the modified specification from the first RFID simulator to a second RFID simulator; and

validating the modified specification associated with the simulated RFID tag at the second RFID simulator.

- 14. (New) The method of claim 12, further comprising:
- defining an RFID tag configuration for the physical RFID tag based on the simulation of the electronic representation of the RFID system.
- 15. (New) The method of claim 12, wherein the electronic representation of the RFID system is defined based on a user-defined constraint that includes at least one of a width of an interrogation field associated with a component of the electronic representation of the RFID system or a height of the interrogation field associated with the component of the electronic representation of the RFID system.
- 16. (New) The method of claim 12, wherein the electronic representation of the RFID system is defined based on a user-defined constraint that includes at least one of a cost of a component associated with the electronic representation of the RFID system or a definition of an obstacle associated with the electronic representation of the RFID system.

Application No.: 10/707,820

Page 7

17. (New) The method of claim 12, wherein the set of simulated RFID components is

selected from a plurality of RFID components based on a user-defined constraint.

18. (New) The method of claim 12, wherein the simulation is performed using a logical

system simulator of the RFID simulator or a radio wave propagation simulator of the RFID

simulator.

19. (New) The method of claim 12, wherein the electronic representation of the RFID

system is defined based on a user-defined constraint that includes a read rate of a simulated

interrogator associated with the electronic representation of the RFID system.

20. (New) A method, comprising:

sending an electronic representation of a first radio frequency identification (RFID)

system associated with an architectural environment and an electronic representation of a second

RFID system associated with the architectural environment, at least two components of the first

RFID system being selected based on a first simulation defined based on a set of constraints, at

least two components of the second RFID system being selected based on a second simulation

defined based on the set of constraints; and

modifying a portion of at least one of the first RFID system or the second RFID system

based on an input from a user.

21. (New) The method of claim 20, wherein the modifying includes modifying a

specification associated with at least one of an RFID tag or an RFID interrogator included in the

first RFID system.

22. (New) The method of claim 21, wherein the modifying includes modifying at a first

RFID simulator,

the method further comprising:

validating the modified specification at a second RFID simulator.

Application No.: 10/707,820

Page 8

23. (New) The method of claim 20, wherein the first simulation is performed by at least one of a logical system simulator or a radio wave propagation simulator.

24. (New) The method of claim 20, wherein the set of constraints includes at least one of a cost of a component, a read rate of an RFID interrogator, a definition of an obstacle, a width of an interrogation field associated with a component, or a height of an interrogation field of a component.